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# The Problematic Construction of ‘Palaeolithic Man:’ The Old Stone Age and the Difficulties of the Comparative Method, 1859-1914.

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## Abstract

The growth of a prehistoric timescale was one of the most dramatic developments in nineteenth-century ideas of humanity, massively extending the assumed course of human development and placing it within the deep chronologies of geological time. A dominant motif linking anthropology and prehistory was the ‘comparative method’ – the idea that modern ‘savages’ were analogous to prehistoric Europeans, most dramatically proposed in the many editions of John Lubbock’s *Pre-Historic Times*, but also found across a host of other works. The importance of this mode of reasoning has been well-studied, and shown to have had great significance for concepts of progress and social evolution. What has been less investigated is what happened when the comparative method broke down, and ‘modern savages’ and ‘prehistoric man’ seemed to be dissimilar, and the analogies either broke down, or were hard to reconcile. This paper examines how a series of authors engaged with these problems as they attempted to historicize human development in the deep prehistoric past. In doing so, it will highlight what was seen as unique about European prehistory, and the development of anthropological methods and concepts.

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## 1. Introduction

One of the most dramatic developments in Victorian ideas of the past – and humanity’s place within it – was the ‘establishment of human antiquity,’ and the growth of a concept of prehistory. In a series of finds across Europe (and beyond) gathering pace from the mid-century onwards, stone tools, artworks and body parts were discovered in ancient geological layers. These were dated to the drift and glacial periods defined by geology, uncountably distant eras far beyond any historical framework. The deep antiquity of European prehistory, low condition of prehistoric Europeans, and amount of change in culture, technology and society which had occurred since, forced considerable reflections on human development and difference. Moreover, understanding European prehistory was not only a means of understanding the deepest past of Europe, but also ‘primitive’ humanity in general, and the potentials of transition to more civilized states. Yet despite this conceptual significance, there remained major difficulties in method and evidence. Not only did prehistoric research depend on the interaction of a range of disciplinary fields – particularly geology, archaeology, anthropology and palaeontology – but it also sought to reconstruct alien cultures from limited and difficult to interpret material.

Until recently, the significance of this Victorian ‘time revolution’ has tended to be over-shadowed by the parallel developments of Darwinian evolution and its social applications, and the apparent ‘sharpening’ of racial discourse in the late-1850s and early-1860s.<sup>1</sup> The main works which engaged with its importance were John Burrow’s surprisingly neglected *Evolution and Society* and Peter Bowler’s *Invention of Progress*.<sup>2</sup> Yet over the past two decades there have been a number of studies asserting the importance of the establishment of human antiquity within nineteenth-century scholarly culture. A number of general accounts have discussed it, paying particular attention to the ‘fulcrum period’ around 1859-60, but also later developments.<sup>3</sup> Other studies have also examined the impact of deep-time evolution on colonial policy,<sup>4</sup> national identity,<sup>5</sup> international scholarly relations,<sup>6</sup> museum organization,<sup>7</sup> and how depictions of human prehistory often drew off deep stereotypes (frequently dating to classical and Biblical notions) of

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<sup>1</sup> Lorimer (1978) and Hall (2002).

<sup>2</sup> Burrow (1968) and Bowler (1989).

<sup>3</sup> Grayson, (1983), Van Riper (1993), Coye (1998), O’Connor (2007) and McNabb (2012).

<sup>4</sup> Trautmann (1997) and Koditschek (2011).

<sup>5</sup> Manias (2012) and Cook (2014).

<sup>6</sup> Kaeser (2001).

<sup>7</sup> Bennett (2004).

savages and wildness.<sup>8</sup> It is becoming established that – when considering nineteenth-century concepts of race, evolution and humanity – it is important to pay as much attention to the establishment of human antiquity as to more conventional topics of the rise of ‘social Darwinism’ and ‘scientific racism.’

Within studies of the importance of human prehistory, a great deal of attention has focused on the so-called ‘Comparative Method.’ This was a notion which grew from the understandings of human development promoted through prehistory, which postulated that it was possible to align different human groupings across time and space according to their levels of civilization. This was not new: comparative analogies had been key modes in both early-modern antiquarianism<sup>9</sup> and in the conjectural histories of the Enlightenment.<sup>10</sup> However, the synthetic nature of mid-nineteenth century prehistory drove comparisons with a new force. Humans judged to be in the ‘lowest condition,’ be they defined as Tasmanians, Australians, ‘Bushmen,’ ‘Eskimo,’ Patagonians or the Europeans of the Old Stone Age, could be understood as ‘shedding light’ on one another. These assumptions were crucial to structuring the field, and not only ‘know’ the savages of European prehistory, but also modern ‘primitive’ populations. The colonial resonances of this mode of reasoning have expectedly attracted much attention, particularly how comparative studies could justify the civilizing mission in colonial territories or rationalize its impossibility given the timescales required.<sup>11</sup> Other works have examined how comparative observations were used to comprehend not only the material and physical evidence of social evolution, but also abstract issues around the essentials of human psychology, ranging from toolmaking to numeracy.<sup>12</sup> These works have shown the core assumptions of the comparative method, and the linear theories which it drew from and reinforced, to have been deeply significant – even essential – to Victorian conceptions of ‘primitive humanity’ and ‘savagery’ (and their key binary of ‘civilization’).

This paper however is approaching the comparative method from a different angle, namely what happened in cases when the analogies between modern and prehistoric ‘savages’ broke down and did not seem to fit. While the comparative method was regarded as a powerful means of conceptualizing human development and filling in gaps in evidence, it was not without its problems and limitations. Indeed, many of the

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<sup>8</sup> Moser (1998), Berman (1999) and Livingstone (2008).

<sup>9</sup> Coye (1998) and Moser (1998).

<sup>10</sup> Meek, 1976 and Wheeler (2000).

<sup>11</sup> Sommer (2005) and Kuklick, (2006).

<sup>12</sup> Gamble and Moutsiou, (2011), Pettitt and White (2011), and Barany (2014).

key nineteenth-century texts promoting comparative analyses were also littered with assertions of non-equivalence between different groups of ‘savages,’ the recognition of difficulties posed by the evidence, and numerous conspicuous absences in its actual use. Scholars were often limited by evidence and material in pushing comparisons too far, and their own authority required that they did not make too grand claims. However, restrictions also depended more generally on what the leading promoters of the Victorian ‘time revolution’ felt was unique about ‘savage’ societies, and how key forces – material culture, psychological development, environment and racial character – related to one another and could be deduced from material evidence. It is important to note that this essay is not seeking to downplay the importance of the ‘comparative method.’ As shall be seen, it was persistently widely used. It is more examining the gaps and the holes in the model, as a way of investigating more deeply how prehistoric and modern ‘savage’ societies, and general trends of social development, were understood in this period.

The main focus will be on a series of leading authors involved in the establishment and later analysis of human prehistory, examining a series of synthetic works that attempted to reconcile large amounts of material and evidence for scholarly and generally educated readers. While this of course only gives a partial impression of the field of human prehistory in this period – much of which, as has been shown by Anne O’Connor and Bowdoin van Riper,<sup>13</sup> was disseminated through scholarly association, journal publications, museum displays, and letters and unpublished writings, and in a framework which was as international as it was specifically British<sup>14</sup> – this permits a clear set of case-studies which were predicated around comparative methodologies. Works like John Lubbock’s *Pre-Historic Times* (1865), William Boyd Dawkins’ *Early Man in Britain* (1880) and William J. Sollas’ *Ancient Hunters and their Modern Representatives* (1911), intended to serve as much as ‘state of the field’ presentations as arguments by the authors, collated and reconciled large amounts of evidence, and the issues of aligning material within wider conceptions of ‘savagery’ and the long trajectories of human development came to the fore. The analysis will also pay particular attention to their characterization of the Palaeolithic or Old Stone Age, the earliest and longest period of human prehistory, where humans were presented as living as the ‘lowest savages’ – a period crucial to the establishment of human antiquity and conceptually highly significant as a time of origins, but also the period from which the least evidence was available. Examining this area allows a tracking of some of the most extensive uses of the

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<sup>13</sup> O’Connor (2007) and Riper (1993).

<sup>14</sup> Coye (1998) and Kaeser (2001).

comparative method, and the problems within it. This will permit a broader discussion of the similarities and differences that a series of Victorian thinkers, with different disciplinary backgrounds and emphases, brought to the discussion of 'primitive' humanity, and the ways they engaged with key issues of the impact of evolution, social development, climate and environment on ancient human society, and their varied conceptions of 'savagery.'

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## 2. Ethnographic Comparisons: John Lubbock and Daniel Wilson

Comparative approaches to the deepest human past were not only central to 'the establishment of human antiquity,' but some of the most developed were made by the two scholars most responsible for promoting the term 'prehistory' itself. The first was the Scottish antiquary Daniel Wilson (1816-1892), the son of an Edinburgh engraver who had risen through the ranks of the Society of Antiquaries of Scotland to become the director of the society's museum, where he came particularly under the influence of Scandinavian approaches to archaeology and museum arrangement. His 1851 study, *The Archaeology and Prehistoric Annals of Scotland*, was the first to clearly present the term 'prehistory' to an English-speaking audience (some time before the classic dates for the 'establishment of human antiquity' of 1859-61), and reconstructed the development of the Scottish populations from the stone ages to the early medieval period through ethnographic, archaeological and geological evidence. However, in what was to be crucial for his studies, he was appointed to a Professorship in English and History at the University of Toronto in 1853. Moving to Canada, he continued these interests by investigating the Native American populations of the New World within a framework informed by European prehistory, collecting these into *Prehistoric Man: Researches into the Origin of Civilisation in the Old and the New World* (1862).

The second figure was of a more elevated social rank: Sir John Lubbock (1834-1913). While Wilson was in some respects a 'professionalizing' figure, employed in museums and the university sector, Lubbock was almost the model of an elite gentleman scientist. A banker, Liberal MP and elevated to the peerage as Baron Avebury from 1900, Lubbock was also Charles Darwin's pupil and neighbour in Downe and a member of the

‘X-Club,’ a dining society for the new circle of scientific naturalists.<sup>15</sup> Lubbock’s interests were extensive, but he became best known for his prehistoric studies. His key work, *Pre-Historic Times: As Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages*, was highly popular, and went through seven editions from its first appearance in 1865 until 1913. It was not only a central text in the popularization of prehistory, but was also of scholarly importance, being the first to divide the Stone Age into an earlier *Palaeolithic* of chipped stone and hunter-gatherer lifestyles, and a later *Neolithic* of settled habitations, domesticated animals and polished stone.

Wilson and Lubbock show different backgrounds and interests focusing on European prehistory. The contrast between them formed the centrepiece of Alice Kehoe’s account of the growth of American archaeology,<sup>16</sup> which drew attention to the differences in class background and presents Wilson as having a more sympathetic view of indigenous culture. As shall be seen, the two authors certainly had different conceptions of how prehistoric societies should be understood. However, examining them together illustrates more general trends in how prehistoric research interacted with ideas of social development in this period. This first generation of prehistoric scholars faced similar problems in their use of comparative analogies, although attempted to come up with different solutions: Wilson aiming for close study of a particular set of modern populations, while Lubbock extending his comparisons massively to the global scope visible from his drawing room.

Both Lubbock and Wilson presented the comparative method as central to their analyses. Wilson’s *Pre-Historic Annals* made comparisons early on between the ‘allophylians’ – the earliest population of the British islands – and modern peoples still living in the ‘Stone Period,’ namely ‘the Fins and Esquimaux, the African bushmen, and the natives of such of the Polynesian Islands as are rarely visited by Europeans.’<sup>17</sup> The ‘aboriginal Caledonian’ was described as an ‘untutored savage’ in conflict with the fierce wildlife of prehistoric Scotland. However, these comparative passages were relatively brief. It was only with observation of modern peoples that he presented himself as more confident in characterizing ‘primitive man’. In his later studies, written while in Canada, he recalled how ‘it was with a strange and fascinating pleasure that, after having striven to resuscitate the Allophylian of Britain’s prehistoric ages, by means of his buried arts, I found myself face to face with the aborigines of the New World. Much that become

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<sup>15</sup> Clark (1997), Barton (1998), Patton (2007) and Richard, (2012).

<sup>16</sup> Kehoe (1998).

<sup>17</sup> Wilson (1851), p. 29.

familiar to me in fancy, as pertaining to a long obliterated past, was here the living present; while around me, in every stage of transition, lay the phases of savage and civilized life.<sup>18</sup> This is important as it illustrates that the comparative method was not only a means of conceptualizing the problematic relics of European prehistory, but also of understanding modern observed societies, placing them within a historical framework.

Expectedly given the book's subtitle, Lubbock's *Pre-Historic Times: As Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages* also contained numerous references to how 'some nations, such as the Fuegians, Anadamers, etc., are even now only in an age of Stone.'<sup>19</sup> He explicitly discussed Australian flint-knapping techniques alongside those of Palaeolithic Europeans, and compared Inuit and prehistoric Europe flint scrapers, noting (with his own emphasis) that 'these modern specimens are in form *identical* with the old ones.'<sup>20</sup> However, what is curious following this is how rare further analogies actually were in the book beyond the most basic tool forms, with there being a surprising lack of direct comparisons. Partly this was down to the evidence available at the time, with only a relatively small range of prehistoric artefacts having been found in Palaeolithic sites. Tools were of course of crucial importance for proving the existence of humans in ancient geological layers,<sup>21</sup> and could serve as indicators of development of material culture. However, they offered limited potentials to deduce beliefs, customs and habits – key subjects of interest for mid-Victorian anthropologists as markers of social and cultural evolution.

The lack of comparisons did not just grow from a lack of evidence, however. Natalie Richard has drawn out the contrast that while leading prehistorians in France, particularly Gabriel de Mortillet, were happy to produce detailed progressive typologies based solely on artefacts, Lubbock and British writers were much less amenable to this idea, demanding further evidence.<sup>22</sup> This seems to have developed from Lubbock's concept of 'savagery' itself, and can be seen in the final part of *Pre-Historic Times*, a long account of 'the Manners and Customs of Modern Savages,' intended 'to throw some light on the remains of savage life in ages long gone by.'<sup>23</sup> This section was based largely on travel accounts, and characterized the 'savage condition' as actually highly variable, making considerable allowances for climate, custom and tradition. While prehistoric and

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<sup>18</sup> Wilson (1862) I, p. 6.

<sup>19</sup> Lubbock (1865), p. 3.

<sup>20</sup> Lubbock (1865), p. 71.

<sup>21</sup> Riper (1993).

<sup>22</sup> Richard (2011).

<sup>23</sup> Lubbock (1865), p. viii.



modern 'savages' were unified within a general state, the stage of 'savagery' included numerous distinctions within it.

Lubbock presented a grand panorama of 'modern savages' across the globe, starting in southern Africa, moving across the Indian Ocean to Australasia, Polynesia, and then north to south over the Americas. While the initial sections implied a progression up a fairly linear ladder (with the peoples from the 'Hottentots' of South Africa to the Tahitians of Polynesia becoming more socially organized and complex), the descriptions then became steadily less regular. The 'Esquimaux' were presented as somewhat inferior to the Polynesians in technology and social organization, the natives of the American interior were slightly higher, and the final culmination with the 'Tierra del Fuegians' drew back to another classic example of the lowest savagery. In all these sections, comparative analogies with prehistory were not only absent, but diets, tools, modes of dress and social organization between all these modern groups were shown as extremely distinct from one another. He expressly noted that 'I cannot indeed but think that the differences observable in savage tribes, are even more remarkable than the similarities'<sup>24</sup> and that 'habits of an Esquimaux and a Hottentot could not possibly be similar.'<sup>25</sup>

While material progress was one aspect of this difference, equally important was the impact of climate and environment on the habits and customs of modern 'savages.' Lubbock noted how 'many, indeed, of those differences ... follow evidently and directly from the external conditions in which different races are placed.'<sup>26</sup> What unified them was their low state of development, which gave them a common mental character, depicted in broad-brush terms as immoral, impulsive, promiscuous and violent, with 'the character of children with the passions and strength of men.'<sup>27</sup> However, this condition also left them subject to the imprint of the environment. The differences between them were due to 'external conditions, influenced indeed to a certain extent by national character, which however is after all but the result of external conditions acting on previous generations.'<sup>28</sup> Given the alien climate of Ice Age Europe, most directly comparable with that of the Arctic North, but inhabited by stranger creatures, including mammoths, woolly rhinoceros and cave bears, direct comparisons here were difficult.

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<sup>24</sup> Lubbock (1865), p. 459.

<sup>25</sup> Lubbock (1865), p. 452.

<sup>26</sup> Lubbock (1865), p. 452.

<sup>27</sup> Lubbock (1865), p. 465.

<sup>28</sup> Lubbock (1865), p. 445.

Similar limitations were presented by Wilson in *Prehistoric Man*, which – as noted above – rested on more focused comparisons. Wilson made numerous observations of Native American languages, religious beliefs, tools (including a long discussion of early metallurgy) and architectural practices. Again though, despite assertions of the importance of the comparative method, direct analogies were largely limited to the simpler forms of stone tools. While this was again partly due to the surviving evidence from the European Palaeolithic, his comparison of prehistoric European works of art and their Native American equivalents shows this also grew from a conception of cultural diversity. Wilson noted, explaining the similarity in early material culture, that:

in the simplest forms of ancient weapons, implements, and pottery, mere utility was the aim. The rude savage, whether of Europe or America had neither leisure nor thought to spare for decorative art. His aesthetic faculty had not yet begun to influence his constructive instincts ... [But] the moment we get beyond this primitive and mere utilitarian epoch of rudest art, the contrast between the products of early European and American artistic skill is exceedingly striking; and their value to the ethnologist and archaeologist becomes great, from the insight they give into the aspects of mental expression, and the intellectual phases of social life, among those unhistoric generations of men.<sup>29</sup>

The first decorative artworks showed clear differences in style and purpose, and were one of the first manifestations of distinctive tastes and ‘character.’ This shows important aspects around conceptions of human diversity in this period. At the lowest stages, humans possessed a similar mentality, driven by necessity and the dictates of the environment, and therefore comparative analogies could be made – although were rendered potentially problematic due to climatic differences. However, after progress occurred beyond this condition, each people began to develop a distinctive material culture in line with their own characters. As with Lubbock, comparative analogies did not necessarily lead to a simple idea of regular linear progression, but reflected general ‘states’ of existence, which left considerable room for manifestations of difference.

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<sup>29</sup> Wilson (1862), I, p. 451.

Comparisons were only made through crafted objects, but also drew from racial ideas. Here, anthropologists were developing new techniques, particularly craniology, with skull-measurement becoming seen as a key means of identifying human ‘types.’ However again, the records of European prehistory proved problematic. Not only were skulls from the stone period relatively rare, but those which had been found posed significant problems. Both Wilson and Lubbock deferred to Thomas Henry Huxley’s *Man’s Place in Nature* (1863), which analyzed the two key known prehistoric skulls– the Neanderthal skull found in Germany in 1856 and the Engis Skull discovered in Belgium in 1829. Huxley asserted that the Neanderthal skull was too strange and alien to represent a general type of human. However, the more modern seeming Engis skull was examined in much greater depth, and both Wilson and Lubbock quoted Huxley that it was ‘a fair average human skull, which might have belonged to a philosopher, or might have contained the thoughtless brains of a savage.’<sup>30</sup> While Huxley seems to have implied that it was impossible to judge the mental condition of the Engis specimen (and thus potentially use it as a bridge from ape to man), Lubbock and Wilson deployed this comment more generally, that all ‘primitive’ skulls could be variably interpreted. Lubbock indeed broadened Huxley’s comment to make it a broad statement, that ‘in the present state of our knowledge the skeleton of a savage could not always be distinguished from that of a philosopher.’<sup>31</sup> This implied that the acknowledged inferiority of modern ‘savages’ did necessarily not depend on their physical conformation, but that their ‘thoughtlessness’ and immorality grew from their degree of civilization.

There were however the beginnings of attempts to use craniological research to define differences in ‘race’ between different periods of prehistory, thereby asserting the importance of migration and invasion to changes in civilization. Particularly when studying later periods, such as the onset of the Neolithic, Bronze and Iron Ages, a great deal of attention was paid to skulls found in grave-sites. In *Prehistoric Annals*, Wilson contained a long discussion on prehistoric ‘Crania of the Tumuli’ based on Scandinavian methods, although this was rather inconclusive.<sup>32</sup> In *Prehistoric Man*, he also attempted to divide the Native Americans into at least three different racial groups through craniological studies.<sup>33</sup> Lubbock meanwhile noted that Palaeolithic skulls found in Scandinavian tumuli ‘are round, with heavy, overhanging brows, and go far to justify the

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<sup>30</sup> Huxley 1863, p. 181.

<sup>31</sup> Lubbock (1865) p. 2.

<sup>32</sup> Wilson (1851), pp. 160-190.

<sup>33</sup> Wilson (1862), II, pp. 327-8.

opinion entertained by some archaeologists, that the pre-Celtic inhabitants of Scandinavia, and, perhaps, of Europe generally, were of Turanian origin, akin to modern Laplanders<sup>34</sup> – thereby suggesting a racial distinctiveness of the ancient population. These accounts suggested that large-scale changes in material culture and across prehistoric eras were driven by the migration of new racial groups. However, these theories had to remain tentative owing to the lack of evidence, and it seems that the racial features were as much markers of cultural and material change as causal, driving forces in history.

The gaps and issues within Lubbock and Wilson's use of the comparative method therefore display a number of important similarities. They presented an ethnographic model, where material culture, tradition and habits were judged as the most important markers of a 'primitive' condition. This implied a strong degree of mental unity across the domain of 'savagery,' but also that there was a great deal of variability at this stage, as primitive societies adapted themselves and were imprinted on by environmental conditions. While attempts were made to investigate racial groups, these tended to be presented more as the carriers of particular material cultures rather than be permanent types. This suggests that prehistoric archaeology – in its initial forms – was somewhat insulated from the 'hardening' of racial discourse which historians have identified as an important issue in this period. Partly, this came from the more ethnographic interests of Lubbock and Wilson. However, it also derived from the source material. The lack of skulls made racial analogies between the populations of the deepest Stone Age and modern 'primitive' populations difficult, and placed a brake on more extreme pronouncements. Additionally, as the above examples should indicate, a lack of hard biological racial thinking did not necessarily imply a respect for human universalism. Differences in civilization and morality were equally significant.

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### **3. Naturalistic Methods: William Boyd Dawkins and George Worthington Smith.**

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<sup>34</sup> Lubbock (1865), p. 90.

The works of Daniel Wilson and John Lubbock were essential to cementing the field of human antiquity, and popularizing key terms. However, they were constrained by the availability of evidence, and ascribed a shaping role to the environment on ‘savage’ society. This style of thinking continued later into the century, much bolstered by the prestige of Lubbock’s writings and by the development of the new school of anthropology around Edward Burnett Tylor (1832-1917), which was based on similar investigations of cultural development.<sup>35</sup> Indeed, the fact that Lubbock’s works were reprinted in new editions until the 1900s should go against easy periodizations in thinking on these matters.

However, there was still something of a shift in how human prehistory, and the comparative method, were utilized in the following decades. Notably, the ethnological models discussed above remained difficult to use, given that the material records of human prehistory still seemed to show little about morality and customs – key objects of study in contemporary ethnography and anthropology. Works in this genre continued to be quite light in comparative analogies. Lubbock’s later work, *The Origin of Civilization* (1882) contained only a few pages on prehistoric Europe, examining Palaeolithic artworks of carved reindeer bone and mammoth ivory discovered in southern France.<sup>36</sup> While this linked them to the art of the ‘Eskimos,’ the rest of the work dealt almost entirely with social, mental and cultural issues (ranging through ‘marriage,’ ‘religion,’ and ‘law and legal custom’), and citations of prehistoric evidence were notable by their absence. Almost all of the comparisons were between modern travel accounts or classical and mythological texts. Meanwhile, Tylor’s seminal work *Primitive Culture* explicitly noted that ‘the master-key to the investigation of man’s primaeval condition is held by Prehistoric Archaeology,’<sup>37</sup> and included a fairly substantial section describing the establishment of human antiquity. However, the following sections (again with the exception of a brief excursion into Palaeolithic artwork) dealt with modern ‘primitive’ customs rather than prehistoric material. While the assumption remained that prehistoric archaeology and modern ethnography could ‘elaborate and explain one another,’<sup>38</sup> examples of how this could be achieved in practice were remarkably thin. While the implications were that the trends being observed continued back into European

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<sup>35</sup> Leopold (1980) and Sera-Shriar (2013).

<sup>36</sup> Lubbock (1882), pp. 30–34.

<sup>37</sup> Tylor (1891), p. 58.

<sup>38</sup> Tylor (1891), p. 61.

prehistory, the evidence for humanity's prehistoric mental state and cultural condition remained impenetrable.

However, the balance of authority within prehistoric research was also beginning to diversify, as it was undertaken by those with more explicitly palaeontological or archaeological expertise. Here the works of two figures are illustrative. The first is William Boyd Dawkins (1837–1929), an economic geologist with interests in physical anthropology and palaeontology, who was active in scientific circles in the north-west of England and published two successful works on prehistory, *Cave Hunting* (1871) and *Early Man in Britain* (1880). The second, George Worthington Smith (1835–1917), was a London architect who excavated a number of archaeological sites in East London and Essex, and bought a large collection of artefacts from workmen engaged in building projects. His results were eventually collated into the volume *Man: The Primeval Savage* (1894). These two figures made quite different uses of the comparative method, with Dawkins presenting strong racial analogies and Smith pushing evolutionary time backwards to evoke a population even more undeveloped than the lowest 'modern savages.' However, these were not incompatible, but depended on new techniques, evidence and conceptions that were drawing around prehistory, ethnography and human comparisons, as well as the persisting limitations of evidence.

Dawkins used a rigid form of the comparative method. While Lubbock had offered fairly general analogies between the inhabitants of Ice Age Europe and modern Arctic populations, Dawkins was far more adamant. In his books and numerous articles, he explicitly aligned all evidence available of the 'cave men' of the European Ice Age with the modern Inuit, placing them (like Lubbock and Wilson) within the nineteenth-century category as 'Eskimos.' He compared their tools, artworks, skulls, habitation sites and assumed lifestyles, and concluded that they were identical in a manner which went far beyond 'mere coincidences, caused by both peoples leading a savage life under similar circumstances.'<sup>39</sup> It was not only basic material culture which was similar, such as the scrapers and arrowheads cited by Lubbock, but all implements, artworks and even cranial features. This was taken as illustrating racial commonality: 'the agreement of one or two of the more common and ruder instruments may be perhaps of no value in classification, but if a whole set agree ... we must admit that the argument as to race is of very great value.'<sup>40</sup>

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<sup>39</sup> Dawkins (1874), p. 357.

<sup>40</sup> Dawkins (1874), p. 358.

Particularly important for Dawkins were artworks. Numerous carved Palaeolithic objects had been discovered in southern France over the 1860s and 1870s. These were primarily highly-realist depictions of animals carved on bone and ivory, and were significant for a number of reasons. Firstly, they implied cultural advance over the earlier populations, who had only left chipped flint implements and no artistic products. Secondly, they could be stylistically compared with objects produced by modern peoples to ascribe a sense of common mentality, custom and tradition. Thirdly, the objects, which depicted either prey animals or (more rarely) hunting scenes, illustrated both the contemporaneousness of humans with prehistoric animals (such as reindeer and mammoths), and hunting methods. In this way, analysis of art could reinforce ideas of human development which were simultaneously progressionist, with the invention of artistic techniques shown to be a step up the ladder of civilization, but also divergionist, drawing links between different populations according to stylistic similarities. This illustrates continuity with Daniel Wilson's ideas, which saw the development of decorative art as both a step beyond raw savagery, but also an initial manifestation of cultural difference.

When comparing the art of Palaeolithic southern France with Inuit material, Dawkins identified them as identical – reinforcing a link between race and material culture. He noted 'one difference only, that the hunting scenes familiar to the Palaeolithic cave-dweller were not the same as those familiar to the Eskimos on the shores of the Arctic Ocean. Each sculpted the animals he knew, and the whale, walrus, and seal were unknown to the inland dwellers in Aquitaine, just as the mammoth, bison, and wild horse are unknown to the Eskimos.'<sup>41</sup> However, this difference in animal depictions reinforced rather than destabilized Dawkins' comparisons. In spite of the differences in lifestyle, diet and habitation between the modern maritime Eskimo and the prehistoric inland populations of France, they still showed common artefacts and artistic style. This demonstrated that racial commonalities could trump modes of subsistence and environment in defining of human communities.

However, despite the rigidity of Dawkins' comparisons, he still faced difficulties when going to earlier periods, when material evidence was less available. In his later work, *Early Man in Britain*, he continued to align the Inuit and 'the cave men,' and, if anything, further craniological studies gave him even more confidence. However, geological and archaeological researches led him to revise his view for the preceding

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<sup>41</sup> Dawkins (1874), p. 356.

period of the 'river drift' gravels. In this earlier era, geological and fossil evidence indicated a much warmer climate, and the human artefacts were of an even more primitive character and apparently identical across a wide area, with similar tools found in sites in Europe, India and Africa. As such, a prior racial group was postulated, who had dispersed across the Old World (and potentially also into Australasia and the Americas). This people was judged to be below the Ice Age cave men, with no art and only a small range of tools of a 'rude and simple' character, which 'imply that their possessors were savages like the native Australians'<sup>42</sup> – citing these as the lowest example of living savagery. However, while numerous comparisons were made with aboriginal Australian tools, Dawkins felt himself unable to push the analogy further into racial classifications. Human remains were 'very seldom met with in the river-deposits; and are so fragmentary as to give but little indication of his physique.'<sup>43</sup> and as such 'we are without a clue to the ethnology of the River-drift man, who most probably is as completely extinct at the present time as the woolly rhinoceros or the cave-bear.'<sup>44</sup> Again, the lack of skulls and human remains limited direct racial comparisons.

However, in spite of these problems in racial classification, Dawkins' used other methods to classify ancient humans, placing them more firmly in the natural world. Given the changes in environment and animal fauna identified between the river drift and glacial periods, the two groups of prehistoric human were described as populating Europe alongside changing climates and migrations of groups of animals. The primitive 'River-drift men belong to the southern group of Mammalia,' being associated with the pre-Ice Age warm weather fauna of hippopotamus, rhinoceroses and elephants. Meanwhile, 'the Cave-men' were later migrants, coming with Arctic animals as the climate cooled, and 'must be classified with the reindeer, the musk sheep, and other northern animals.'<sup>45</sup> This explained the chronological difference, with the river-drift man entering Europe in the warmer pre-glacial period, and the cave-men only migrating under later Ice Age conditions. In this manner, early human types were locked within zoological and climatic systems, and spread according to environmental change. Environment was therefore crucial to the dispersal of 'savages', but this was a more dynamic model than Lubbock's view of the accumulated imprint of climatic forces on a general 'savage' state. It also explained their subsequent fates. As the climate warmed again, the cave-men

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<sup>42</sup> Dawkins (1880), p. 163.

<sup>43</sup> Dawkins (1880), p. 167.

<sup>44</sup> Dawkins (1880), p. 233.

<sup>45</sup> Dawkins (1880), p. 233.



returned to the Arctic, being driven out by a further migrating group of peoples – the Neolithic people who were bringing domesticated animals and agriculture.<sup>46</sup>

George Worthington Smith focused primarily on the earliest Palaeolithic populations – the types of people Dawkins classified as ‘River Drift Man,’ and even preceding types. For Smith, these ‘Primeval Savages’ were so low in the scale of human development that they were unlike any people known through history or ethnography. He specifically noted that ‘no race of men to whom any historical record whatever survives is referred to under these words’<sup>47</sup> – even the classic markers of humanity’s ‘lowest condition’ assumed by Lubbock and Dawkins, the ‘Tierra del Fuegians and aboriginal Australians. Material culture, and especially stone tools, were again the main gateways into the life and habits of ‘early man,’ but the paucity of evidence ensured that ‘our knowledge of the primeval or Palaeolithic savage and his mode of life is at present little better than a shadow.’<sup>48</sup> As a result, the vast majority of Smith’s works consisted of matter-of-fact descriptive accounts of particular implements, arranged by the layer and the locality they were discovered in, with comparative analogies being largely absent.

While this would seem to indicate a quite restrained typological method, a key section of Smith’s study (and one which stands out tremendously from the technical and dry style of the rest of the work) shows that more imaginative comparisons could come into play. Chapter Two of *Man, The Primeval Savage* was a detailed speculative reconstruction of ‘the primeval savages’ of the Thames Valley prior to the glacial period, illustrating ‘what kind of animal the oldest primeval man really was, and how, as I think, he probably lived, acted, and died.’<sup>49</sup> He opened by stating that his reconstruction was based on a combination of archaeological analysis and ethnographic methods, and that ‘by putting known facts together, and by assuming that our savage precursors of far-off times had ideas not very unlike those of savages of recent times, it is perhaps possible to galvanise the fragmentary bones of the primeval savage into temporary life.’<sup>50</sup> However, despite this statement, there were almost no direct comparisons with any modern population, with his reconstruction being of the wildest type of human possible. Physically, these ‘human creatures’ were short, hairy and shuffling, with ‘somewhat shorter in stature, bigger in belly, broader in the back, and less upright’ than modern

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<sup>46</sup> Manias (2012).

<sup>47</sup> Smith (1894), p. 1.

<sup>48</sup> Smith (1894), p. 2.

<sup>49</sup> Smith (1894), p. 45.

<sup>50</sup> Smith (1894), p. 46.

people, and also ‘much more hairy than human creatures of the present time, especially the old males and the children ... the heads are long and flat, and the features perhaps some-what unpleasing.’<sup>51</sup> Their moral conventions and social organization were presented as at the lowest levels possible. They lacked language, and communicated ‘not by true speech; by chattering, jabbering, shouting, howling, yelling, and by monosyllabic spluttering.’<sup>52</sup> Religion only existed in a vague dream-like state, and ‘everything that moved was alive. A man would therefore growl at his own intruding shadow or his own reflection in the water.’<sup>53</sup> They had no domesticated animals – indeed, ‘the men had not even tamed each other’<sup>54</sup> – and did not possess even basic sexual or family morality: ‘of course there was no marriage, but there was pairing, and it is probable that one male would keep more or less to one female, but only till one birth had taken place.’<sup>55</sup> Even their mode of subsistence was disgusting, with frequent eating of rotten meat and cannibalism. The primeval savage ‘would not be particular about having his flesh food over-fresh. He would constantly find it in a dead state, and if semi-putrid he would relish it none the less ... If driven by hunger and hard pressed, he would perhaps sometimes eat his weaker friends or children.’<sup>56</sup>

While on first sight this appears like a flight of fancy based on fairly grotesque literary sensibilities, this reconstruction seems to have been informed by a combined reading of naturalistic writers like Dawkins and social evolutionists like Lubbock and Tylor. As with Dawkins, these ‘human creatures’ were presented as part of the natural world. However, while Dawkins had linked human cultures with biogeographical theories, Smith placed them more explicitly in evolutionary time. The earliest primeval savage linked the human and the animal worlds – ‘man at that time was not a degraded animal, for he had never been higher; he was therefore an exalted animal, and, low as we esteem him now, he yet represented the highest stage of development of the animal kingdom of his time.’<sup>57</sup> On the one hand, this placed prehistoric humans within biological evolution, and the idea of a ‘missing link’ between humans and animals which was rapidly becoming of popularity in this period, partly, but not entirely, due to the debates around Darwinian evolution.<sup>58</sup> However, this was not a solely natural-historical

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<sup>51</sup> Smith (1894), p. 50.

<sup>52</sup> Smith (1894), p. 51.

<sup>53</sup> Smith (1894), p. 52.

<sup>54</sup> Smith, (1894), p. 52.

<sup>55</sup> Smith (1894), pp. 53-4.

<sup>56</sup> Smith (1894), p. 57.

<sup>57</sup> Smith (1894), p. 59.

<sup>58</sup> Kjærgaard (2011).

model, as it also rested on more cultural ethnographic notions. The description of the habits of the ‘primeval savages’ seem to have come from extrapolations from works like Tylor’s *Primitive Culture* and Lubbock’s *Origin of Civilization*. Both made strong allusions to the immorality of ‘savage life,’ and devoted considerable attention to language, religion, sexual relations (under the euphemistic ‘marriage customs’), and law and social regulation. Both tended to present even the most primitive modern human groups as having some conception of a higher power, some familial relations, and a germinal sense of social hierarchy and law. However, there was always an assumption underlying these models that earlier stages – of total atheism and ignorance of any divine being, a ‘primal horde’ of utter promiscuity, and social anarchy dictated only by strength – lay just below the lowest modern observed peoples. This is the type of human Smith described, and as such combined the conventions of social and biological evolutionary discourse, and took them to their furthest conclusions.

Both Dawkins and Smith therefore built on the traditions established by Lubbock, Tylor and Wilson, using prehistory as a means of approaching the cultural, physical and moral evolution of early humans. They also consistently faced difficulties of evidence, making as many comparative analogies as they could with the material available (in particular tool-forms and artworks), but remaining limited by lack of other evidence – in particular skulls and bodily remains, which were judged to be essential to racial classifications. This ensured that the deeper into humanity’s evolutionary past the analogies went, the less possibility there was of making comparisons. As John McNabb has noted, ‘when the ethnographic method was pushed back into the drift period the analogies broke down.’<sup>59</sup> However, this could lead the authors in different directions, either to vague assertions of ignorance, as in Dawkins’ discussions of ‘river-drift man,’ or imaginative reconstructions of utmost savagery as in Smith. Yet Dawkins and Smith also represent a shift in how prehistory was approached. In both, there was an increased use of naturalistic approaches, linking early humans with evolutionary change in the climate and fauna. This meant that comparative analogies were extended to not only include comparisons with human ‘savages,’ but also with animals. Whether this was through Dawkins’ classification of particular human societies as part of particular ‘faunas,’ or Smith’s ghoulish depiction of his disgusting ‘human creatures’ on the borderland between human and animal status, prehistory was moving to place humanity more firmly within the natural world.

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<sup>59</sup> McNabb (2012), p. 59.

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#### 4. Expansion of Knowledge: William J. Sollas

Attempts to align prehistoric Europeans with modern ‘savages’ depended on alignments of different approaches, particularly biological evolution, studies of prehistoric culture and ethnological theories and methods. All of these areas however began to shift considerably around the turn of the century. Firstly, prehistory’s connections with biological evolution and racial theory were tightened, as more skeletal remains from were discovered. These ranged from new Neanderthal specimens from Gibraltar, Belgium and southern Europe, which showed it as a distinct morphological type rather than an aberrant individual,<sup>60</sup> to *Pithecanthropus erectus* discovered by Eugene Dubois in Java, which shifted the debate on the early phases of prehistory to colonial regions and intermediary stages of ape-like precursors. While human evolutionary studies seemed to be ‘othering’ prehistory in important ways, discoveries from later periods of the Palaeolithic were causing reevaluations of the capacities of ‘primitive man.’ As discussed above, artworks of carved bone and ivory had been one of the most evocative Palaeolithic remains, and seemed to offer a window into cultural conditions. This evidence was expanded tremendously in the early-1900s, as a series of painted caves in Spain and southern France were recognized as authentic and widely reported.<sup>61</sup> These contained striking images of prey animals, handprints and symbols, and their hidden nature raised theories of hunting magic, spirituality and secret rituals.<sup>62</sup> Finally, in ethnography, observational studies of non-European populations were being conducted in a more intensive and systemized manner by a new generation of anthropological observers. New studies, focusing closely on individual populations (such as Spencer and Gillen’s *Native Tribes of Central Australia* and the 1898 Cambridge expedition to the Torres Straits), aimed for a more rigorous disciplinary status.<sup>63</sup> Rhetorically tied to a professionalizing discourse of anthropological fieldwork and an implication in colonial and ‘salvage’ projects, information on the customs of non-European peoples was coming in increasing depth.

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<sup>60</sup> Hammond (1982) and Sommer (2005).

<sup>61</sup> Abadía (2013) and Hurel (2011).

<sup>62</sup> Hurel (2011) and Palacio-Pérez (2013).

<sup>63</sup> Kuklick (1991) and (2006).

Interest in the comparative method continued alongside these developments, and was prominently put forward by William J. Sollas (1849-1936), professor of geology at Oxford University. The first edition of his work, *Ancient Hunters and Their Modern Representatives*, appeared in 1911 and billed itself as a comprehensive account of researches into human prehistory. As in Lubbock, the title implied the centrality of comparative analogies, and an initial glance at its structure would suggest it was built around a rigid variant of the comparative method. The chapters alternated between specific periods of prehistory and analogous modern 'savage hunters,' most notably pairing the 'Mousterian' Neanderthals with aboriginal Australians, the art-producing 'Aurignacians' of the mid-Palaeolithic with the San of southern Africa, and the Magdalenians (the peoples Dawkins had classed as 'cave men') with the Inuit. As should be evident from the discussion of Lubbock and Dawkins, these connections were quite conventional. The work was therefore in a comparative tradition, and structured around assumptions that pairs of prehistoric and modern peoples were analogous to one another.

However, looking more deeply, it becomes apparent that Sollas regarded these comparisons as by no means unproblematic. He raised a number of issues in these analogies, which relate closely to changing concepts of human biological evolution and cultural difference, and also the more complex models of prehistoric environment and culture which were developing through geology and archaeology. Sollas utilized the whole range of evidence available to him, including anthropological and ethnographic reports, artworks, tool forms and craniology. Most of the direct comparisons were again in stone artefacts, which were judged as being closely related across prehistoric and modern periods. However, other evidence – which could be used to imply deeper racial or cultural similarity – was examined much more closely, and frequently in a more qualified manner.

Sollas used craniological studies much more extensively than prior writers. This was partly due to the increased collection of prehistoric and extra-European skulls in this period, but also due to the systemization of craniological techniques, around not only fairly easy to measure values such as cranial capacity and the 'cephalic index' but a range of minute studies of regions of the skull. These comparisons, and the highly technical language around them, can be illustrated by his comparison of the skulls of Mousterian Neanderthals and aboriginal Australians:

the Australians of all races make the nearest approach to the Mousterians. Many of the more brutal Australians, especially among those inhabiting the south of the continent, present a depressed cranial vault with receding forehead and occiput, almost identical in profile with some forms of Neandertal skull: there is a resemblance, though not identity, in the characters of the frontal torus; and the lower jaws, with the teeth, present some analogies. The Australians are a lower race than the Neandertal; at the same time, they are more closely allied to it than any other; and we may regard the Australian as a survival from Mousterian times, but not as a direct descendant of the Mousterian races of Europe.<sup>64</sup>

This illustrates important issues in Sollas' comparisons. Particular cranial features were clearly presented as primitive. Despite the technical language, the characteristics identified – sloping forehead, depression at the back of the skull, and jutting jaws – were almost identical to those presented by writers going back to the eighteenth century of 'primitive' forms,<sup>65</sup> illustrating the long-standing nature of these stereotypes. These markers enabled the two populations to be connected and classed as at similar levels of development. However, enough physical differences were noted between the 'Mousterians' and Australians to differentiate them, with the modern Australians indeed showing more characteristics of inferiority than their Neanderthal counterparts. Whether this was due to evolutionary development or differences in descent was impossible for Sollas to say, but it did imply that craniology was used to define variety in physical forms.

A more important issue which emerged in Sollas' craniological comparisons was that the brains of prehistoric Europeans were always presented as larger and more complex than their modern counterparts. While craniologists in this period were moving away from assertions that raw cranial capacity was a clear mark of intelligence, the degree of difference were still judged to be significant. Sollas noted how the brains of prehistoric Mousterians were much larger than the modern Australians, and 'whatever other significance the size of the brain may possess – or lack – it is, in any case, a morphological character of great importance, and a difference of 400 c.c. or say 25% in average capacity, such as distinguishes the Australian from the Mousterian, cannot be disregarded.'<sup>66</sup> Similar differences of around 15% were also noted between Aurignacian

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<sup>64</sup> Sollas (1911), pp. 161-2.

<sup>65</sup> Bindman (2002).

<sup>66</sup> Sollas (1911), p. 161.

skulls and ‘any existing Negro race,’<sup>67</sup> again implying lower mental development for the modern analogue.

In some respects, this gives the lie to the Eurocentricism which underlay these accounts, with the populations of ancient Europe presented as superior to modern ‘savages.’ Assertions of greater brain size for prehistoric Europeans – and therefore potentially greater mental capacities – was also necessary to explain one of the key problems in comparative accounts: why progress had continued within Europe from the prehistoric period, but apparently been arrested in other parts of the world.<sup>68</sup> However, it was also important in another way. Sollas conceptualized the prehistoric peoples as the highest manifestations of human progress that had lived up till the point of their existence. While base and primitive by modern standards, by the conventions of their own epochs they were highly advanced, driving forward new and unprecedented material culture and social organization. As such, large brain size and correspondingly high creativity and intelligence were to be expected. Meanwhile, their modern counterparts were understood as isolates and living fossils – and had been subjected to European imperialism, which Sollas presented as having a disastrous effect upon them. No longer as wide-ranging as their prehistoric counterparts, they were pushed to the world’s margins. The modern ‘savage hunter’ was not the ideal representative of this condition, but a pale shadow of his ancient equivalent.

This notion of the modern savage as a broken relic compared to his more vigorous prehistoric equivalent can also be illustrated, and partly explained, by the way Sollas interpreted the wide dispersal of these peoples. For this, Sollas deployed notions of migration and dispersal. *Ancient Hunters* presented population groups at each ‘stage’ of development as being displaced by higher ones in the depths of prehistory. This showed human progress as driven by the invasion of superior racial groups, and the extermination of their inferior counterparts. In the case of the Mousterians and Australians, he was unable to clearly assert the mechanisms by which this had taken place, arguing that:

It is tempting to suppose either that the inferior tribes of the Neanderthal race were driven by stress of competition out of Europe, and wandered till they reached the Australian region; or that at some early time they occupied a tract of land extending almost continuously from Europe to Australia, and have

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<sup>67</sup> Sollas (1911), pp. 267-8.

<sup>68</sup> Bowler (1989).

since been everywhere blotted out except in their southern home. We cannot appeal to the widespread distribution of the earlier forms of Palaeolithic implements in favour of either theory, for, as cannot too frequently be repeated, the possession of a common culture is no proof of community of race.<sup>69</sup>

While lack of evidence and assertions of difference made Sollas unable to judge which of these alternatives was correct, both evidently implied that the Mousterians had lost out in the battle for survival with later, more advanced groups.

Sollas' cultural reconstructions were more confident for later periods, especially the Aurignacian-San comparison, which was the longest section of the work. The Aurignacian period was a critical one in contemporary conceptions of prehistory: it existed between the Mousterian Neanderthals and the Ice Age, and its very existence had been debated fiercely among French prehistorians over the 1900s.<sup>70</sup> By claiming the existence of this period, Sollas was therefore placing himself at the cutting edge of continental researches, and associating himself with the new guard of French prehistorians such as Marcellin Boule and Henri Breuil. The Aurignacian was important for another reason, being the period from which the most striking of the newly discovered prehistoric artworks were dated. These included the elaborate painted caves at Altamira, Font-de-Gaume, and Les Eyzies, and sculpted human figurines. These were far more elaborate than the carved reindeer bones and mammoth ivory that Dawkins associated with the later caves, and seemed to display an astonishing degree of technical skill and aesthetic sense. Sollas expressly noted (in an elevated aesthetic comparison) that 'the best examples attain so high a pitch of excellence that enthusiastic discoverers have spoken of them as superior in some respects to the work of the Greeks.'<sup>71</sup> He also presented them as enabling empathy with these savage hunters, as 'we cannot survey the series of pictures with which Aurignacian man has illustrated the animal life of his time without a feeling of delight, and the pleasure we feel in this glimpse of a vanished fauna is enhanced by the fact that we look at it through the eyes of the ancient hunter himself.'<sup>72</sup>

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<sup>69</sup> Sollas (1911), p. 208.

<sup>70</sup> Coxe (1998), pp. 239-285, and Hurel (2011), pp. 173-200.

<sup>71</sup> Sollas (1911), p. 223.

<sup>72</sup> Sollas (1911), pp. 244-5.



Sollas also used the artworks to link his Aurignacians with the San. He argued that they depicted similar scenes (hunting and prey animals), in similar media (carvings and painted rocks), and in a similar style. Further ethnographic and racial comparisons were also brought in. Hand prints in the Aurignacian caves seemed to display missing digits, which was aligned with the customary excision of fingers reported among South African and Australian populations – although Sollas did concede that this was a tentative comparison, as the number of missing digits in the caves seemed more extreme than that practiced among modern populations, and the missing fingers on the prints could equally have been due to folding of the fingers.<sup>73</sup> He also followed the typical classification of the Aurignacian ‘Venus’ figurines as showing a ‘steatopygeous’ form, referring to fat deposits on the thighs and buttocks – a feature judged as characteristic of the San.<sup>74</sup> Given the realist character of the rest of Aurignacian art, these were taken to be accurate reflections of the physical character of Aurignacian women, and that ‘the artist who carved the figurines have shown in the clearest manner that they were intimately acquainted with women who presented a close anatomical resemblance to the existing Bushwomen, and the presumption is that these were women of their own race.’<sup>75</sup>

Sollas’ comparison of the Aurignacians and the San was in some ways conventional, but also represents something of a shift in values. In anthropological discourse across the nineteenth century, ‘Bushmen’ and ‘Hottentots’ had been presented as among the lowest of ‘savages,’ in a degraded, disgusting condition and with repulsive physical features. These stereotypes dated back far, to early-modern travel accounts and to the display of Saartjie Baartman, ‘the Hottentot Venus,’ in early-nineteenth century Europe.<sup>76</sup> They were also found in Lubbock, whose ‘Hottentots’ were the lowest and ‘in many respects the most disgusting of savages.’<sup>77</sup> However, while Sollas certainly presented his ‘Bushmen’ as lacking in material development and technological sophistication, his presentation was rather more complex. He noted ‘although far from attaining to our standard of beauty, yet still there was something prepossessing about the Bushman to those who looked with a discerning eye,’<sup>78</sup> and that ‘all that we learn about the Bushmen impresses us with their great intellectual ability.’<sup>79</sup> While of course rather patronizing, it seems as if the appreciation of Palaeolithic artwork and the variable

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<sup>73</sup> Sollas (1911), pp. 238-9.

<sup>74</sup> White (2006).

<sup>75</sup> Sollas (1911), p. 266.

<sup>76</sup> Gilman (1985).

<sup>77</sup> Lubbock (1865), p. 338.

<sup>78</sup> Sollas (1911), p. 272.

<sup>79</sup> Sollas (1911), p. 300.

cultural models developing at this time were leading to a more sympathetic characterization of the mental habits, customs and morals of modern ‘savages.’

The close connections identified between the San of southern Africa and the Aurignacians of Europe, and the vast distance between them, also enabled Sollas to argue more confidently for a history of migration. Similar artworks had been discovered in the Maghreb, which implied that the population had originated somewhere in central Africa, and then moved ‘in a slow migration across the whole of the broad territory which intervenes between Dordogne and the Cape.’<sup>80</sup> leaving artworks in all the territories that they inhabited. However, regardless of Sollas’ apparent empathy with the San, this was a migration which again ended in extinction. Not only had the Aurignacians been forced out of Europe in later periods, but they were now also dying in their last remaining home in southern Africa, in particular being decimated in their conflicts with the Boers. In a melancholy closing, he noted how:

In their golden age, before the coming of civilised man, they enjoyed their life to the full, glad with the gladness of primeval creatures. The story of their later days, their extermination, and the cruel manner of it, is a tale of horror on which we do not care to dwell. They haunt no more the sunlit veldt, their hunting is over, their nation is destroyed; but they leave behind an imperishable memory, they have immortalised themselves in their art.<sup>81</sup>

This shows Sollas, and prehistoric comparisons more generally, as important proponents of the ‘extinction discourse’ developing over the nineteenth century as presented by Patrick Brantlinger, but particularly the more complex manifestations of it drawn out by Sadiya Qureshi.<sup>82</sup> The melancholy nature of Sollas’ depictions, his frequent admiration for the ‘savage hunter,’ both in its prehistoric and its modern sense, and his citation of the brutality of the extinction of primitive populations, meant that this was mixed with a strong sense of tragedy and loss. In prehistory, these peoples had been free to develop in the most productive lands without competition or conflict from more advanced peoples. They therefore could reach the highest pinnacle of ‘savage’ life, and represented its ideal state. However, that each group was also annihilated and driven out by peoples at the next stage of development also rationalized a model of racial conquest and extinction,

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<sup>80</sup> Sollas (1911), p. 304.

<sup>81</sup> Sollas (1911), pp. 305-6.

<sup>82</sup> Brantlinger (2003) and Qureshi (2013).

with these same processes occurring in prehistoric Europe and modern South Africa and Australasia.

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## 5. Conclusion

The vagaries of the comparative method across the second half of the nineteenth century display a range of issues around how the deep past of human development was conceptualized. The wide use of the comparative method simultaneously illustrates its appeal, but also how it was often constrained by lack of evidence and the needs of the different approaches which converged upon the field of human prehistory. A variety of forms of evidence were seen as essential to reconstruct the life of prehistoric humans and compare them with potential modern analogues, including stone artefacts, artworks and physical remains. Of these, tools and artefacts were easiest to compare, but also the least useful in reconstructing ancient human societies. Instead, key markers of human race and culture – namely physical remains (particularly skulls) and artworks – were presented as the crucial gateways into the condition and development of prehistoric humans, with comparative analogies of both artistic styles and cranial features attempted wherever possible, and used to assert both direct descent and similarities in evolutionary level.

Across the period there was an increasing assertion of authority from the natural sciences. It was not only craniology which was important in racially linking such groups as Inuit and ‘cave men,’ or Neanderthals and aboriginal Australians, but also palaeontological and climatic studies, which allowed prehistoric humans to be placed within ancient landscapes and animal groups. Across all of the authors though was an idea that humans in the ‘savage’ condition, whether they be prehistoric or modern, were dependent on their environment. However, whether this was due to the direct imprint of environmental conditions on their lifestyles and habits, as it was for Lubbock, due to their incorporation within particular environmentally-determined ‘faunas’ as for Dawkins, or due to more general issues of racial and cultural evolution as for Sollas, was difficult to agree on. However, the ‘savage’ as dependent upon nature was a common concept. This made groups placed in the category comparable, but also ensured that strong notions of variability were built into understandings of the savage condition.

This concept of variability was important, particularly in the context of wider Victorian ideas of progress. All the writers presented prehistory in terms of higher and lower stages, and moving broadly in an upwards direction. Part of the variation between different groups of ‘savages’ implied that some were superior or inferior to other groups, whether this be through Lubbock’s jerky geographic analysis or Sollas’ sympathetic account of the lifestyles of the San, who were somewhat in the middle of his material narrative of prehistoric progress. Additionally, differences between human groupings and the growth of specific ‘national characters’ were persistently interesting objects of study for Victorian scholars, seen to develop from historical change, environment and were reflected in cultural products such as artworks and taste. This illustrates that even within one of the most dramatic instances of Victorian linear social evolutionism, strong notions of variability and divergence were always brought in – which were only seen to increase as human societies advanced up the ladder of progress. As such, through comparing and linking ‘savages’ across time and geographic space, prehistorians were forced to not only acknowledge the similarities between the savages of Europe, but also the forces which affected human differentiation.

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## End Matter

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